

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently Amended) An electronic device test apparatus ~~as set forth in claim 1,~~
~~wherein the identifying means~~ for testing DUTs by pushing their input/output terminals against
contact units of a test head, comprising:

a moving device configured to pick up and move the DUTs;

a first imaging device configured to capture an image of a front surface of the DUT on
which the input/output terminals are led out before being picked up by the moving device;

a second imaging device configured to capture an image of a back surface of the DUT on
which the input/output terminals are not led out after being picked up by the moving device; and

a calculating device configured to calculate ~~calculates~~ the position and posture of the
outside shape of ~~the said one main front surface of the in said~~ DUT before being picked up by
the moving ~~device means~~ and the position and posture of the input/output terminals of ~~the said~~
DUT before being picked up by the moving ~~device means~~ from image information captured by
the first imaging ~~device means, calculates, calculate~~ the position and posture of the outside shape
of the ~~back other main surface of the in said~~ DUT after being picked up by the moving ~~device~~
~~means~~ from image information captured by the second imaging ~~device means, calculates, and~~
~~calculate~~ the position and posture of the input/output terminals of the DUT after being picked up
by the moving ~~device means~~ based on the results of these calculations.

3. (Canceled).

4. (Currently Amended) An electronic device test apparatus ~~as set forth in claim 3,~~
~~wherein said identifying means for testing DUTs by pushing their input/output terminals against~~
~~contact units of a test head, comprising:~~

a moving device configured to pick up and move the DUTs;

a first imaging device configured to capture an image of a front surface of the DUT on
which the input/output terminals are led out before being picked up by the moving device;

a second imaging device configured to capture an image of a back surface of the DUT on
which the input/output terminals are not led out after being picked up by the moving device;

a third imaging device configured to capture an image of the back surface of the DUT
before being picked up by the moving device; and

a calculating device configured to calculate ~~calculates~~ the position and posture of the
input/output terminals of the said DUT before being picked up by the said moving device means
from the image information captured by the said first imaging device means, calculate ~~calculates~~
the position and posture of the outside shape of the back ~~other main~~ surface of the said DUT
before being picked up by the said moving device means from the image information captured
by the said third imaging device means, calculate ~~calculates~~ the position and posture of the
outside shape of the back ~~other main~~ surface of the at said DUT picked up by the said moving
device means from the image information captured by the said second imaging device means,
and calculate ~~calculates~~ the position and posture of the input/output terminals of the DUT picked
up by the said moving device means based on the results of these calculations.

5. (Currently Amended) An electronic device test apparatus as set forth in claim 2 ~~4~~,
wherein the said moving device means has a suction device configured to hold ~~means for holding~~
and pick ~~picking up~~ the said DUT by suction.

6. (Currently Amended) An electronic device test apparatus as set forth in claim 2 ~~4~~,
wherein the said first imaging device means is provided at the said moving device means.

7. (Currently Amended) An electronic device test apparatus as set forth in claim 2 ~~1~~, wherein

~~said apparatus is further provided with~~ comprising:

a test plate having substantially smooth holding surfaces for holding the back ~~other main~~ surfaces of the DUTs ~~where input/output terminals are not led out, wherein~~

the said moving device means places the DUTs on the holding surfaces of the test plate so as to relatively correspond to the array of the contact units, and

the input/output terminals of the DUTs electrically contact the corresponding contact units of the test head in the state with the DUTs held by the holding surfaces of the test plate in a positional relationship corresponding to the array of the contact units.

8. (Currently Amended) An electronic device test apparatus as set forth in claim 7, wherein holding surfaces of the test plate have suction device configured to hold ~~means for holding the back other main~~ surfaces of the DUTs by suction.

9.(Original) An electronic device test apparatus as set forth in claim 7, wherein the holding surfaces of the test plate hold the DUTs in the state with the input/output terminals of the DUTs directed vertically upward.

10. (Currently Amended) An electronic device test apparatus as set forth in claim 7, wherein

the test plate has holders provided in a freely movable ~~rockable~~ manner and

the holding surfaces are the top surface of the holders ~~the holders are formed at the holding surfaces of the test plate.~~

11. (Original) An electronic device test apparatus as set forth in claim 10, wherein the contact units are provided with guide parts in their vicinities and the holders of the test plate are guided by the guide parts.

12. (Original) An electronic device test apparatus as set forth in claim 11, wherein the guide parts have at least two guide surfaces extending in mutually nonparallel directions.

13. (Currently Amended) An electronic device test apparatus as set forth in claim 12, wherein the moving device means places the DUTs on the holders of the test plate after correcting the positions and postures of the DUTs so that the distances from the side surfaces of the holders abutting against the guide surfaces to the DUTs become substantially equal to the distances from the guide surfaces in the vicinities of the contact units to the contact units.

14. (Currently Amended) An electronic device test apparatus as set forth in claim 12, further comprising provided with pushing device configured to push means for pushing the holders of the test plate so that the side surfaces of the holders abut against the guide surfaces.

15. (Currently Amended) An electronic device test apparatus as set forth in claim 14, wherein the pushing device means have elastic members and are provided at the test plate.

16. (Currently Amended) An electronic device test apparatus as set forth in claim 10, ~~wherein~~

~~the apparatus is further provided with~~ comprising a positioning plate configured to position for positioning the holders of the test plate, ~~and wherein~~

the moving device means places the DUTs on the holders of the test plate while correcting their positions and postures in the state with the positioning plate positioning the holders of the test plate.

17. (Currently Amended) An electronic device test apparatus as set forth in claim 16, wherein

the positioning plate is formed so that the openings in which holders of the test plate can be inserted correspond to the array of contact units of the test head, and

the moving device ~~means~~ places the DUTs at the holders of the test plate while correcting their positions and postures in the state with the side surfaces of the holders of the test plate abutting against the inside walls of the openings of the positioning plate.

18. (Currently Amended) An electronic device test apparatus as set forth in claim 17, wherein the pushing device ~~means~~ ~~push~~ pushes the holders of the test plate so that the side surfaces of the holders of the test plate abut against the inside walls of the openings of the positioning plate.

19. (Currently Amended) An electronic device test apparatus as set forth in claim 1, wherein the moving device ~~means~~ can move the picked up DUTs in any direction and can rotate them in any direction.

20. (Canceled)

21. (Currently Amended) A method of testing DUTs ~~as set forth in claim 20, wherein the identifying step~~ pushing their input/output terminals against contact units of a test head, comprising:

capturing a first image of a front surface of a DUT on which the input/output terminals are led out before the DUT is picked up by a moving device configured to pick up and move DUTs;

capturing a second image of a back surface of a DUT on which the input/output terminals are not led out after being picked up by the moving device;

calculating the position and posture of the outside shape of the front ~~said one main surface of the in-said~~ DUT before being picked up by the moving device means and the position and posture of the input/output terminals of the said DUT before being picked up by the moving device means from the first image information captured at the first imaging step;

calculating the position and posture of the outside shape of the back ~~other main surface of the in-said~~ DUT after being picked up by the moving device means from the second image information captured at the second imaging step; and

calculating the position and posture of the input/output terminals of the DUT after being picked up by the moving device means based on the results of these calculations.

22. (Canceled)

23. (Currently Amended) A method of testing DUTs ~~as set forth in claim 22, wherein said identifying step~~ pushing their input/output terminals against contact units of a test head, comprises:

capturing a first image of a front surface of a DUT on which the input/output terminals are led out before the DUT is picked up by a moving device configured to pick up and move DUTs;

capturing a second image of a back surface of a DUT on which the input/output terminals are not led out after being picked up by the moving device;

capturing a third image of the back surface of the DUT before being picked up by the moving device;

calculating the position and posture of the input/output terminals of the said DUT before being picked up by the said moving device means from the first image information captured at said first imaging step;

calculating the position and posture of the outside shape of the back other-main surface of the said DUT before being picked up by the said moving device means from the second image information captured at said third imaging step;

calculating the position and posture of the outside shape of the back other-main surface of the at said DUT picked up by the said moving device means from the third image information captured at said second imaging step; and

calculating the position and posture of the input/output terminals of the DUT picked up by the said moving device means based on the results of these calculations.